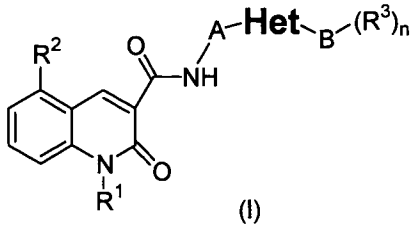
Claim Summary:

Claims 1-14. (canceled)

15. (previously presented) A compound of the formula (I):



(I)

wherein

Het represents a heterocyclic group having one nitrogen atom, to which B binds directly, and from 4 to 7 carbon atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 4 substituents independently selected from the group consisting of substituents α^1;

A represents an alkylene group having from 1 to 4 carbon atoms;

B represents a covalent bond or an alkylene group having from 1 to 5 carbon atoms;

R^1 represents an isopropyl group, an n-propyl group or a cyclopentyl group;

R^2 represents a methyl group, a fluorine atom or a chlorine atom;

R^3 independently represents:

(i) an oxo group, a hydroxy group, an amino group, an alkylamino group or a carboxyl group;

(ii) a cycloalkyl group having from 3 to 8 carbon atoms, and said cycloalkyl group being substituted by 1 to 5 substituents independently selected from the group consisting of substituents α^2, or

(iii) a heterocyclic group having from 3 to 8 atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 5 substituents independently selected from the group consisting of substituents β,

said substituents α^1 are independently selected from a hydroxy group and an amino group;

said substituents α^2 are independently selected from a hydroxy group, an amino group, a hydroxy-substituted alkyl group having from 1 to 4 carbon atoms, a carboxyl group and an alkoxy group having from 1 to 4 carbon atoms;

said substituents β are selected from a hydroxy group, a hydroxy-substituted alkyl group having from 1 to 4 carbon atoms, a carboxyl group, an amino group, an alkyl

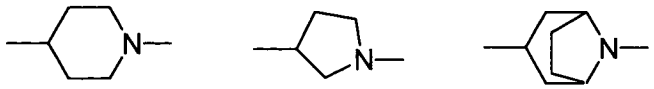
group having from 1 to 4 carbon atoms, an amino-substituted alkyl group having from 1 to 4 carbon atoms and a carbamoyl group; and

n is 1, 2 or 3;

or a pharmaceutically acceptable salt thereof.

16. (previously presented) The compound or its pharmaceutically acceptable salt of claim 15, wherein:

Het represents a heterocyclic group selected from

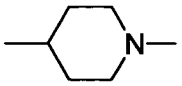


and

said heterocyclic group being unsubstituted or substituted by 1 to 3 substituents independently selected from the group consisting of substituents α^1.

17. (previously presented) The compound or its pharmaceutically acceptable salt of claim 15, wherein:

Het represents a group of formula:



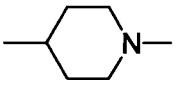
and this group being unsubstituted or substituted by one substituent selected from the group consisting of substituents α^1;

A represents an alkylene group having from 1 to 3 carbon atoms; and

R^1 represents an isopropyl group or a cyclopentyl group.

18. (previously presented) The compound or its pharmaceutically acceptable salt of claim 15, wherein:

Het represents a group of formula:



A represents an alkylene group having from 1 to 2 carbon atoms;

B represents an alkylene group having from 1 to 5 carbon atoms;

R^3 independently represents

(i) an oxo group, a hydroxy group, an amino group, an alkylamino group or a

carboxyl group;

(ii) a cycloalkyl group having from 5 to 7 carbon atoms, and said cycloalkyl group being substituted by 1 to 3 substituents independently selected from the group consisting of substituents α^2, or

(iii) a heterocyclic group having from 5 to 7 atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 3 substituents independently selected from the group consisting of substituents β.

19. (previously presented) The compound or its pharmaceutically acceptable salt of claim 15, wherein:

A represents a methylene group;

B represents an alkylene group having from 1 to 5 carbon atoms;

R^1 represents an isopropyl group;

R^3 independently represents

(i) an oxo group or a hydroxy group;

(ii) a cycloalkyl group having from 5 to 6 carbon atoms, and said cycloalkyl group being substituted by 1 to 2 substituents independently selected from the group consisting of substituents α^2, or

(iii) a heterocyclic group having from 5 to 6 atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 2 substituents independently selected from the group consisting of substituents β,

said substituents α^2 are independently selected from a hydroxy group or an amino group; and

said substituents β are selected from a hydroxy group, an amino group and an alkyl group having from 1 to 4 carbon atoms group; and

n is 1 or 2.

20. (previously presented) The compound or its pharmaceutically acceptable salt of claim 15, wherein:

B represents an alkylene group having from 1 to 3 carbon atoms;

R^3 independently represents

(i) an oxo group or a hydroxy group;

(ii) a cyclohexyl group substituted by 1 to 2 hydroxy group, or

(iii) a heterocyclic group selected from a hydroxytetrahydropyranyl, piperidinyl and morpholinyl, and said heterocyclic group being unsubstituted or substituted by 1 to 2 substituents independently selected from a hydroxy group and a methyl group; and

n is 1 or 2.

21. (previously presented) The compound or its pharmaceutically acceptable salt of claim 20, wherein:

B represents a methylene group;

R^2 represents a methyl group;

R^3 is independently selected from 1, 4 dihydroxycyclohexyl, hydroxytetrahydropyranyl, piperidinyl and morpholinyl; and

n is 1.

22. (previously presented) The compound or its pharmaceutically acceptable salt of claim 21, wherein:

R^3 is 1, 4 dihydroxycyclohexyl or hydroxytetrahydropyranyl.

23. (previously presented) A compound selected from:
N-({1-[(*cis*-1,4-dihydroxycyclohexyl)methyl]piperidin-4-yl}methyl)-1-isopropyl-5-methyl-2-oxo--1,2- dihydroquinoline-3-carboxamide ethanedioate;
N-({1-[(*trans*-1,4-dihydroxycyclohexyl)methyl]piperidin-4-yl}methyl)-1-isopropyl-5-methyl-2-oxo-1,2-dihydroquinoline-3-carboxamide ethanedioate;
or a pharmaceutically acceptable salt thereof.

24. (previously presented) A pharmaceutical composition for the treatment of diseases selected from gastroesophageal reflux disease, gastrointestinal disease, gastric motility disorder, non-ulcer dyspepsia, functional dyspepsia, irritable bowel syndrome (IBS), constipation, dyspepsia, esophagitis, gastroesophageal disease, nausea, central nervous system disease, Alzheimer's disease, cognitive disorder, emesis, migraine, neurological disease, pain, cardiac failure, heart arrhythmia, diabetes, apnea syndrome, and postoperative bowel motility, which comprises a therapeutically effective amount of a compound of claim 15 or a pharmaceutically acceptable salt thereof.

25. (previously presented) A pharmaceutical composition comprising the compound of claim 15 or a pharmaceutically acceptable salt thereof and at least one pharmaceutically acceptable excipient.

26. (withdrawn) A method for treating disease conditions mediated by 5-HT_4 receptor activity, in a mammalian subject, which comprises administering to said subject a compound according to claim 15 or a pharmaceutically acceptable salt thereof.

27. (withdrawn) A method for the treatment of diseases selected from gastroesophageal reflux disease, gastrointestinal disease, gastric motility disorder, non-ulcer dyspepsia, functional dyspepsia, irritable bowel syndrome (IBS), constipation, dyspepsia, esophagitis, gastroesophageal disease, nausea, central nervous system disease, Alzheimer's disease, cognitive disorder, emesis, migraine, neurological disease, pain, cardiac failure, heart arrhythmia, diabetes, apnea syndrome, and postoperative bowel motility, which comprises administering to said subject a therapeutically effective amount of a compound of claim 15 or a pharmaceutically acceptable salt thereof.

28. (withdrawn) A method for treating gastroesophageal reflux disease comprising administering to a mammalian subject a therapeutically effective amount of a compound of claim 15 or a pharmaceutically acceptable salt thereof.